

[illegible]

(a) separating the isoalkane from the normal alkane;

(b) subjecting a portion of the separated normal alkane to dehydrogenation in a dehydrogenation unit to produce a normal alkene; and

2. The process according to claim 1 wherein a portion of the separated normal alkane is subjected to skeletal isomerization to produce more isoalkane.

4. An integrated process for upgrading a C₄, C₅ or mixed stream thereof comprising normal alkane and isoalkane to motor fuel comprising the steps of:

- (a) separating isoalkane from normal alkane;
- (b) isomerizing a portion of the separated normal alkane to isoalkane;
- (c) dehydrogenating a portion of the separated normal alkane to produce normal alkene; and

5. The process according to claim 4 wherein said separating is by fractional distillation.

7. A process for the production of isooctane from a mixed C₄ alkane stream comprising the steps of:

- (a) separating isobutane from normal butane;
- (b) isomerizing a portion of the separated normal butane to isobutane;
- (c) dehydrogenating a portion of the separated normal butane to produce normal butenes;

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(e) reacting the isobutane and normal butenes under alkylating conditions to product isooctane.

8. A process for the production of isodecane from a mixed C_5 alkane stream comprising the steps of:

- (a) separating isopentane from normal pentane;
- (b) isomerizing a portion of the separated normal pentane to skeletal isomerization;
- (c) dehydrogenating a portion of the remainder of the separated normal pentane to produce normal pentenes;
- (d) selectively hydrogenating normal pentenes from (c) under conditions selectively hydrogenate dienes; and
- (e) reacting the isopentane with the normal pentenes under alkylating conditions to product isodecane.